IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

NEUSTAR, INC.,
TRUSTID, INC.,
 	
     Plaintiffs,
 	
     v.
 	
PROVE, INC.,
PAYFONE, INC. d/b/a PROVE
 	
     Defendants.
	Civil Action No. _____
	
	JURY TRIAL DEMANDED

COMPLAINT

Plaintiffs Neustar, Inc. ("Neustar") and TRUSTID, Inc. ("TRUSTID") file this Complaint

against Defendants Prove, Inc. and Payfone, Inc. d/b/a Prove (collectively, "Prove") and allege

as follows:

NATURE OF ACTION

1.   This is a civil action arising out of Defendants' patent infringement in violation of

the Patent Laws of the United States, 35 U.S.C. §§ 271 and 281-285.

THE PARTIES

2.   Neustar is a corporation organized and existing under the laws of Delaware

having a principal place of business at 21575 Ridgetop Circle, Sterling, Virginia 20166.

3.   TRUSTID is a corporation organized and existing under the laws of Delaware

having a principal place of business at 21575 Ridgetop Circle, Sterling, Virginia 20166.

4.   Prove is a corporation organized and existing under the laws of Delaware having a principal place of business at 245 Fifth Avenue, 20th Floor, New York, New York 10016.

5.   Payfone, Inc. is a corporation organized and existing under the laws of Delaware having a principal place of business at 215 Park Avenue South, New York, New York 10003.

JURISDICTION AND VENUE

6.   This Court has subject-matter jurisdiction over Neustar's patent-infringement claims pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7.   This Court has personal jurisdiction over Prove and Payfone at least because Prove and Payfone are incorporated in this District.

8.   Venue is proper in this District pursuant to 28 U.S.C. §§ 1391 and 1400(b) at least because Prove and Payfone are residents and corporate citizens of this District.

BACKGROUND

9.   The technology at the heart of this civil action protects consumers and call centers from phone-based fraud and malfeasance. Plaintiffs Neustar and its subsidiary TRUSTID developed innovative, award-winning technology directed to forensic caller-authentication techniques that transformed the call-center authentication industry. Defendants Prove and Payfone are free-riding on Neustar and TRUSTID's labor and investment by using this patented technology knowingly and without permission.

A. Neustar and TRUSTID created a flourishing market in forensic call-authentication through innovation, ingenuity, and investment.

10.   Neustar is a trusted provider of risk solutions with a history of neutrality, fairness, integrity, and leadership. Neustar currently serves more than 8,000 clients worldwide, including 60 companies on the Fortune 100. Neustar is a leader in the field of contact-information services, and specifically in locating customers' contact information based on phone numbers.

11.   TRUSTID, a garage-based startup, transformed the call-center marketplace with forensic caller-authentication techniques. TRUSTID's patented technology verifies that calling party telephone numbers are not spoofed, virtualized, or manipulated before a call is answered, allowing call centers to provide a secure and streamlined customer experience.

12.   Despite their relatively short existence, TRUSTID and its innovative technology have received prestigious industry awards. In 2014, TRUSTID won the SPIFFY Award for best investment opportunity within the fixed telecom sector. And in 2019, TRUSTID won the PACE Technovation Award for its call-authentication platform; this award recognizes innovation in products and services within the contact center industry.

13.   Integrity, reliability, and trust are key factors in the authentication-services marketplace. As such, Neustar recognized the extraordinary power in fusing TRUSTID's patented techniques with Neustar's reputation for world-class, contact-information services. Because TRUSTID's technology could ensure the authenticity of callers' phone numbers, Neustar's contact-identification services could better rely on phone numbers when retrieving contact information. In 2019, at significant expense, Neustar purchased TRUSTID.

14.   The resulting solution enables call centers to engage with consumers more efficiently and effectively while reducing regulatory and brand-reputation risks. Neustar's solution optimizes procedures, reduces operating costs, combats fraud, and improves the customer experience.

B. Neustar and TRUSTID labored and invested to invent, perfect, and protect their innovative technologies.

15.   Neustar and TRUSTID invested significantly in these patented technologies. In 2008, TRUSTID began developing, testing, and perfecting its forensic call-analysis techniques, expending millions of dollars over the ensuing decade. Ultimately, these efforts validated the

techniques and produced objective data demonstrating that TRUSTID's technologies not only

worked, but achieved the level of financial and regulatory sophistication and security demanded

by organizations.

16.   In the late 2000s, the marketplace became increasingly concerned with data

breaches and privacy due to the proliferation of social-media platforms and the growing

collection of large amounts of personal data. In response, Neustar became laser-focused on

developing unparalleled security and privacy controls for its contact-information services. This

would ensure that Neustar could continue to provide its contact-information services for even the

most sensitive of tasks, such as those required in the financial and government sectors.

17.   Recognizing the importance of these inventions and their appeal to competitors,

TRUSTID and Neustar also had the foresight to invest significant capital to protect these

innovative and valuable technologies. TRUSTID protected its intellectual property, filing its first

patent application in 2009. After thorough examination from the United States Patent and

Trademark Office, TRUSTID was issued 8 patents related to the technology and has several

pending patent applications. Similarly, Neustar filed its first patent application on its

groundbreaking privacy and security technology in 2010. And Neustar has been issued 102

patents related to the technology.

18.   TRUSTID also previously had to defend its intellectual property against free-

riding competitors. In a suit filed in 2018, and now scheduled for a July 2021 trial in the United

States District Court for the District of Delaware, TRUSTID seeks to protect its intellectual

property against willful infringement by a competitor, Next Caller. That lawsuit against Next

Caller involves three patents that are also asserted here: U.S. Patent Nos. 9,001,985 ("'985

patent"); 8,238,532 ("'532 patent"); and 9,871,913 ("'913 patent").

19.   These patents have withstood Next Caller's multiple failed attempts to invalidate

them. For example, the Delaware court denied Next Caller's motion to invalidate these patents as

being directed to ineligible subject matter. The court also denied Next Caller's motion for

summary judgement that each of these patents was invalid as being anticipated or obvious.

Similarly, the Patent Trial and Appeals Board ("PTAB") denied Next Caller's petitions for *inter*

partes review of the '532 and '913 patents. And although the PTAB found that certain claims of

the '985 patent were invalid (a decision that is currently on appeal), the PTAB ultimately

confirmed the patentability of claims 8-11, 15, and 19-21. As a result, the estoppel provisions of

35 U.S.C. § 315 now preclude Next Caller and its privies from challenging the validity of the

'985 patent based on patents or printed publications.

20.   Based in part on the strength of TRUSTID's technology and intellectual-property

portfolio, Neustar purchased TRUSTID in 2019. The acquisition allowed Neustar to integrate its

existing mission-critical, call-centric fraud, risk, and compliance solutions with TRUSTID's

innovative call-analysis capabilities to deliver a comprehensive caller-authentication solution to

customers. This integration effort required additional capital investment.

21.   Neustar is committed to protecting its significant investment in building a strong

patent portfolio and its investment in TRUSTID against ongoing efforts by competitors to use its

technology without permission.

C. **Neustar and TRUSTID's patented techniques protect consumers from fraud and malfeasance, allow organizations to realize enormous cost savings, and solve inherent problems in legacy systems.**

22.   Neustar and TRUSTID's patented technology revolutionized the caller-

authentication and customer-identification markets and overcame challenges that plagued

consumers, businesses, technologists, and legislators for decades. Since the early 2000s, tools

facilitating *spoofing*—when a caller falsifies information transmitted with a telephone call to disguise the call's origin—have become widely available. As a result, a need arose to accurately identify legitimate users from fraudsters within authentication processes, such as those used by call centers. In addition, contact-identification processes often rely on callers' phone numbers. If one cannot ensure the authenticity of a caller's phone number, then contact information based on such a phone number may be inappropriately accessed. Various flawed, deficient solutions evolved that failed to meet these needs.

23.   In one common but flawed approach, call centers use knowledge-based authentication (KBA) that relies on personally identifiable information (PII) about the caller, such as the last four digits of the caller's social security number or the maiden name of the caller's mother. This approach is easily circumvented. For example, through data breeches and social media, where people voluntarily share personal information, bad actors can acquire the PII used in the KBA approach. This approach is also time-consuming and frustrating for callers, who have to answer a series of typically mundane questions before they can ask the questions and seek the help that motivated them to call the call center. KBA is also expensive and risky for organizations, given the need to maintain and secure detailed PII about customers.

24.   In another approach, call centers rely on biometric details for caller authentication. However, biometric solutions suffer from myriad deficiencies preventing widespread adoption—e.g., concerns with reliability, implementation difficulties, enrollment, consumer pushback, expense, etc.

25.   By the early-to-mid 2000s, spoofing had become so easy, rampant, and disruptive that executive agencies and the United States Congress considered administrative and legislative

action in the absence of an effective technological solution. However, an effective governmental solution also proved elusive.

26.   Enter Neustar and TRUSTID's powerful, call-authentication and contact-information technologies, which employ a forensic approach to analyze calls within the global telephone network to ensure that calls are not spoofed, virtualized, or manipulated. Whereas competitors' solutions focused on identifying bad actors, TRUSTID's approach instead focused on ascertaining the trustworthiness of every caller, including those acting normally. This groundbreaking approach is protected by Neustar and TRUSTID's patent portfolio, which includes the following patents.

27.   The '985 patent, entitled "Method of and System for Discovering and Reporting Trustworthiness and Credibility of Calling Party Number Information," is directed to a method of calculating a confidence metric associated with an incoming call. All incoming calls include certain so-called calling party information, such as Caller-ID or automatic number identification ("ANI"). The methods of the '985 patent use this calling party information to calculate a confidence metric, which represents "the credibility of the [incoming] calling party number." Exhibit 1 at 13:61-63. As such, a call-center agent that receives the confidence metric will know—before even answering the incoming call—whether to trust the validity of the calling party number.

28.   The '532 patent, entitled "Method of and System for Discovering and Reporting Trustworthiness and Credibility of Calling Party Number Information," is also directed to a method and system of calculating a confidence metric associated with an incoming call. Like the '985 patent, a call-center agent receiving the confidence metric knows the trustworthiness of the calling party information associated with the calling party before even answering the call. In the

'532 patent, the confidence metric is determined by comparing real-time patterns against a historical database of expected call patterns. The system builds these expected call patterns in advance using run-time, call statistics, usage and traffic patterns, and call-frequency tables.

29.   The '913 patent, entitled "Systems and Methods to Identify ANI and Caller ID Manipulation for Determining Trustworthiness of Incoming Calling Party and Billing Number Information," is directed to a technique for determining the trustworthiness of ANI. The system leverages a discrepancy detector that compares calling party information with previously authenticated stored calling party information. When a discrepancy is found, the discrepancy detector generates a discrepancy report, allowing the call receiver to recognize the potential untrustworthiness of the call.

30.   U.S. Patent No. 9,762,728 ("the '728 patent"), entitled "Using Calling Party Number for Caller Authentication," is directed to an authentication device that verifies the authenticity of a call request. The authentication device compares information associated with received ANI to corresponding thresholds. This information includes line type, call velocity, linked accounts, and fraud history. The authentication device generates an authentication result indicating how likely it is that the calling party number is valid and sends the authentication result to a call processing device.

31.   U.S. Patent No. 10,693,840 ("the '840 patent") entitled "Method for Distributing Contact Information Between Applications," is directed to a method and system that enables associated contacting information to be shared across multiple applications that may be implemented on a computer. The contact information may relate, for example, to telephone numbers or e-mail addresses. This information is shared only after verifying that a requester is authorized to receive the requested contact information.

32.   U.S. Patent No. 10,547,739 ("the '739 patent") entitled "Computing Device and System for Rendering Contact Information that is Retrieved From a Network Service" is directed towards a contact-information method and system that provides contact information in connection with incoming calls or messages. The contact-information system employs a database of "communication identifiers" to provide contact information for devices that receive incoming communications. The incoming communications may specify communication identifiers that are stored in the database at a network authority. Importantly, the contact information is only stored in the database if an "entity" authorized with a network authority provides the information to the network authority.

33.   These authentication and contact-identification techniques provide additional layers of security and reduce incidences of consumer fraud. Call centers can identify spoofing attempts before answering a call and identify the caller with greater certainty. As a result, consumers can have greater control over who has access to their data and what data are stored. These techniques obviate the need for customers to endure KBA-style interrogation or share biometric information merely to verify their own identity. Consumers instead receive personalized assistance from the call center from the inception of their calls.

34.   Some of the largest and most prestigious corporations and financial institutions have lawfully deployed this innovative technology. The solution has garnered praise from customers, scholars, innovators, and other industry participants, and received several prestigious industry awards.

D. Prove is knowingly free-riding on Neustar and TRUSTID's labor and investment by using these patented techniques without permission.

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35.   Prove, formerly known as Payfone, was launched in 2008. Initially, Payfone aimed to sell a mobile payment concept in which mobile network operators acted as a credit card company. The offering did not succeed.

36.   Payfone pivoted to offer various identity services to mobile users. These services relied on PII received from mobile network operators. These services also did not flourish.

37.   Payfone then pivoted its business model again to focus on call center authentication. However, Payfone's product, the Trust Platform, was deficient in coverage and flexibility. For example, the Trust Platform could only cover 25% of the assigned number pool in the United States, compared with the 100% coverage offered by Neustar and TRUSTID's solutions. Moreover, Payfone's solution only operated with two particular mobile network operators.

38.   Recognizing the enormous value of TRUSTID's techniques, Payfone entered into an Authenticator Services Agreement with TRUSTID on May 24, 2017. *See* Exhibit 16. Payfone agreed to receive from TRUSTID a service that assessed ANI "using real-time telephone network forensics performed pre-answer." *Id.* at 12. TRUSTID agreed to label each received calling party number as "Credentialed" or as "Uncredentialed" and transmit a "Validity Code" to Payfone based on this assessment. *Id.* The service allowed Payfone's systems to determine the authenticity of incoming calls. Payfone agreed to pay TRUSTID at a rate of $0.10 per GREEN (Credentialed) result. *Id.* at 18-19. The agreement included confidentiality provisions regarding TRUSTID's intellectual property. *Id.* at 4-5.

39.   In 2020, Payfone rebranded itself as Prove. Instead of continuing to license these technologies lawfully or otherwise contract with TRUSTID and/or Neustar, Prove now offers

solutions that use Neustar's patented technology without permission. As detailed below and in the attached claim charts, Prove's Call Center Authentication infringes the patents-in-suit.

40.   On August 24, 2020, Neustar sent, via FedEx, a letter ("Notice Letter") to Prove identifying the '985, '532, '913, and '728 patents, and other patents in Neustar's portfolio. A true and correct copy of the August 24, 2020 Notice Letter is attached hereto as Exhibit 7.

41.   Based on FedEx tracking information, Prove received the Notice Letter on August 25, 2020. On September 8, 2020, counsel for Prove confirmed receipt of the Notice Letter.

42.   Prove has completely and unjustifiably denied infringing Neustar's patents. Prove and Payfone are instead free-riding on Neustar and TRUSTID's labor and investment, and reaping unearned profits by using Neustar and TRUSTID's innovative technology. And Prove does so knowing that these technologies are patented. Neustar and TRUSTID bring this suit against Prove to preserve its intellectual property, protect its significant investment in these technologies, and defend its earned market share.

THE PATENTS-IN-SUIT

43.   On April 7, 2015, the United States Patent and Trademark Office lawfully issued the '985 patent. The '985 patent was duly assigned to TRUSTID, which is the assignee of all right, title, and interest in and to the '985 patent, and possesses the exclusive right of recovery for past, present, and future infringement. At least claims 8-11, 15, and 19-21 of the '985 patent are valid and enforceable. A true and correct copy of the '985 patent is attached hereto as Exhibit 1.

44.   On August 7, 2012, the United States Patent and Trademark Office lawfully issued the '532 patent. The '532 patent was duly assigned to TRUSTID, which is the assignee of all right, title, and interest in and to the '532 patent, and possesses the exclusive right of recovery for past, present, and future infringement. Each and every claim of the '532 patent is valid and enforceable. A true and correct copy of the '532 patent is attached hereto as Exhibit 2.

45.   On January 16, 2018, the United States Patent and Trademark Office lawfully issued the '913 patent. The '913 patent was duly assigned to TRUSTID, which is the assignee of all right, title, and interest in and to the '913 patent, and possesses the exclusive right of recovery for past, present, and future infringement. Each and every claim of the '913 patent is valid and enforceable. A true and correct copy of the '913 patent is attached hereto as Exhibit 3.

46.   On September 12, 2017, the United States Patent and Trademark Office lawfully issued the '728 patent. The '728 patent was duly assigned to TRUSTID, which is the assignee of all right, title, and interest in and to the '728 patent, and possesses the exclusive right of recovery for past, present, and future infringement. Each and every claim of the '728 patent is valid and enforceable. A true and correct copy of the '728 patent is attached hereto as Exhibit 4.

47.   On June 23, 2020, the United States Patent and Trademark Office lawfully issued the '840 patent. The '840 patent was duly assigned to Neustar, which is the assignee of all right, title, and interest in and to the '840 patent, and possesses the exclusive right of recovery for past, present, and future infringement. Each and every claim of the '840 patent is valid and enforceable. A true and correct copy of the '840 patent is attached hereto as Exhibit 5.

48.   On January 28, 2020, the United States Patent and Trademark Office lawfully issued the '739 patent. The '739 patent was duly assigned to Neustar, which is the assignee of all right, title, and interest in and to the '739 patent, and possesses the exclusive right of recovery for past, present, and future infringement. Each and every claim of the '739 patent is valid and enforceable. A true and correct copy of the '739 patent is attached hereto as Exhibit 6.

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COUNT I:
DIRECT INFRINGEMENT OF U.S. PATENT NO. 9,001,985

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49.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-48 above, as if fully set forth herein.

50.   The '985 patent is directed to methods for determining a source origin confidence metric of a calling party number associated with an incoming call that is used to authenticate the calling party. Claim 1 of the patent recites:

A method of determining a source origin confidence metric of a calling party number or billing number associated with an incoming call to a called party telephonic device from a calling party telephonic device, comprising:

receiving by an electronic system associated with the called party telephonic device the calling party number or billing number, wherein the electronic system receives the calling party number or billing number from the called party telephonic device;

after receiving the calling party number or billing number and before the incoming call is answered, gathering by the electronic system associated with the called party telephonic device operational status information associated with the calling party number or billing number; and

determining by the electronic system associated with the called party telephonic device the source origin confidence metric for the calling party number or billing number.

Claim 8 derives from claim 1 and further requires "adjusting by the system associated with the called party telephonic device the source origin confidence metric based on personal risk factors of an entity associated with the calling party number or billing number."

51.   As shown in the claim chart attached as Exhibit 22, Prove has infringed and will continue to infringe at least one claim of the '985 patent by developing, testing, using,

distributing, and selling "Call Center Authentication," which is also referred to as "Call Center Authentication Solution," "Trust Platform," "Trust Portal," and "Trust Score." *See* Exhibit 22. Prove is liable for direct infringement, either literally or under the doctrine of equivalents, of the '985 patent pursuant to 35 U.S.C. § 271(a).

52.   On information and belief, Prove's Call Center Authentication meets each and every limitation of the '985 patent's claim 8, which depends from claim 1. On information and belief, Prove's Call Center Authentication satisfies the preamble of claim 1 of the '985 patent, which requires "[a] method of determining a source origin confidence metric of a calling party number or billing number associated with an incoming call to a called party telephonic device from a calling party telephonic device." In particular, Prove's Call Center Authentication "[a]uthenticates inbound call center calls and prevents ANI spoofing" and increases "ANI match rate while reducing additional authentication." Exhibit 8 at 4; Exhibit 9 at 2. The solution determines a Trust Score (i.e., a "*source origin confidence metric*") by analyzing real-time digital signals to generate a dynamic score. *See* Exhibit 11 at 4-5; Exhibit 20 at 1. Through this mechanism, Prove's Call Center Authentication provides "an increased ANI-match rate that eliminates the need for KBA questions and contains callers in the IVR." Exhibit 10 at 1. As such, on information and belief, Prove's Call Center Authentication provides the preamble of claim 1 of the '985 patent.

53.   On information and belief, Prove's Call Center Authentication also satisfies the "receiving" element of claim 1 of the '985 patent. This element requires "receiving by an electronic system associated with the called party telephonic device the calling party number or billing number, wherein the electronic system receives the calling party number or billing number from the called party telephonic device." Like this element, Prove's Call Center

Authentication offers call centers the ability "to prove possession of the phone dialing into the call center." Exhibit 10 at 1. Prove's Call Center Authentication service receives SIP invite information including an ANI (the "*calling party number*") from a call center (the "*called party telephonic device*") via Prove's application programming interfaces ("APIs"). *See* Exhibit 8; Exhibit 10; Exhibit 12; Exhibit 13.

54.   On information and belief, Prove's Call Center Authentication satisfies the "gathering" element of claim 1 of the '985 patent. This element requires "after receiving the calling party number or billing number and before the incoming call is answered, gathering by the electronic system associated with the called party telephonic device operational status information associated with the calling party number or billing number." Prove's Call Center Authentication leverages APIs used to gather "billions of digital signals from multiple sources." Exhibit 17 at 3. For example, Prove analyzes information such as tenure of a number, behavior, and funding mechanisms (i.e., the *telephonic device operational status information associated with the calling party number*). *See* Consult Hyperion: Event 21 - Fireside Chat With Rodger Desai, *available at* https://chyp.com/webinars/week-21-fireside-chat-with-rodger-desai/. On information and belief, the *operational status information* is gathered *before the incoming call is answered* because Prove claims to instantly verify calls. *See* Exhibit 11 at 3.

55.   On information and belief, Prove's Call Center Authentication satisfies the "determining" element of claim 1 of the '985 patent. This element requires "determining by the electronic system associated with the called party telephonic device the source origin confidence metric for the calling party number or billing number." Prove's Call Center Authentication provides "the Payfone Trust Score^{TM}" (i.e., "*source origin confidence metric*"), which can be

used to prove possession of the phone dialing into the call center. *Id.* at 4-5; Exhibit 14 at 1. The Trust Score™ measures the potential risk associated with a digital identity. Exhibit 17 at 3.

56.   On information and belief, Prove's Call Center Authentication satisfies the "adjusting" element of claim 8 of the '985 patent. This element requires "adjusting by the system associated with the called party telephonic device the source origin confidence metric based on personal risk factors of an entity associated with the calling party number or billing number." Prove's Call Center Authentication provides a "measure of the fraud risk and identity confidence" and "[a]uthenticates inbound call center calls and prevents ANI spoofing." Exhibit 8 at 2, 4; *see also* Exhibit 14 at 1; Exhibit 17 at 3.

57.   It is also expected that discovery will likely reveal additional evidentiary support that Prove's Call Center Authentication performs the above limitations of the '985 patent.

58.   On information and belief, Prove has known or should have known—no later than September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter—(i) about the '985 patent, (ii) that Prove's actions constituted and continue to constitute infringement of the '985 patent, and (iii) that the '985 patent is valid.

59.   Prove could not have reasonably or subjectively believed that its actions do not constitute infringement of the '985 patent. Nor could Prove reasonably or subjectively believe that the '985 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '985 patent.

60.   By its actions, Prove's infringement of the '985 patent has irreparably harmed Neustar and TRUSTID. Unless Prove's infringing acts are enjoined by this Court, Neustar and TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

61.   By its actions, Prove's infringement of the '985 patent has damaged, and continues to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's infringing acts.

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COUNT II:
INDUCED INFRINGEMENT OF U.S. PATENT NO. 9,001,985

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62.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-61 above, as if fully set forth herein.

63.   Prove is liable for indirect infringement by actively inducing infringement of the '985 patent pursuant to 35 U.S.C. § 271(b).

64.   On information and belief, Prove's customers directly infringe the '985 patent by using Prove's Call Center Authentication in the manner alleged above. *See* Exhibit 22. On information and belief, Prove's customers' systems (e.g. IVR systems, network devices, and/or any other software and hardware) communicate with Prove's Call Center Authentication's APIs to instruct Prove to access data obtained from an incoming call. *See* Exhibit 8. For example, Prove's Call Center Authentication generates the Trust Score^{TM} that signals potential fraud risk. *Id.* at 2-3; *see also* Exhibit 17 at 3. By processing incoming calls using Prove's APIs, Prove's customers directly infringe the '985 patent.

65.   On information and belief, Prove specifically intends that its customers infringe the '985 patent. Prove markets its Call Center Authentication knowing that use of the system will inevitably lead its customers to process caller data through use of Prove's API. For example, Prove advertises that its Call Center Authentication includes SIP invite analysis, thus Prove's solution would receive information including ANI from the call center through Prove's API. *See* Exhibit 12 at 1. Prove encourages customers to use its solution by promising its customers that it

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"allows businesses to cut operating expenses by significantly reducing handle time and enabling more customers to self-service in the IVR." Exhibit 9 at 2.

66.   Prove has had actual knowledge of the '985 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '985 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '985 patent, and (iii) that the '985 patent is valid. *See* Exhibit 7.

67.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '985 patent. Nor could Prove reasonably or subjectively believe that the '985 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '985 patent.

68.   The infringing actions of Prove's customers have irreparably harmed Neustar and TRUSTID. Unless these actions are enjoined by this Court, Neustar and TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

69.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's customers' infringing acts.

COUNT III:
CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 9,001,985

70.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-69 above, as if fully set forth herein.

71.   Prove is liable for indirect infringement by way of contributory infringement of the '985 patent pursuant to 35 U.S.C. § 271(c). Prove has sold and continues to sell, offer to sell,

or import into the United States products and services knowing that they are especially made or adapted to operate in a way that infringes the '985 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. *See* Exhibit 22.

72.   Prove has had actual knowledge of the '985 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '985 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '985 patent, and (iii) that the '985 patent is valid. *See* Exhibit 7.

73.   Prove markets the Call Center Authentication to combat the problem of fraud and ANI-match authentication when verifying calls. *See* Exhibit 10 at 1. On information and belief, Call Center Authentication has no substantial non-infringing uses.

74.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '985 patent. Nor could Prove reasonably or subjectively believe that the '985 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '985 patent.

75.   The infringing actions of Prove's customers have irreparably harmed Neustar and TRUSTID. Unless these actions are enjoined by this Court, Neustar and TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

76.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's customers' infringing acts.

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COUNT IV:
DIRECT INFRINGEMENT OF U.S. PATENT NO. 8,238,532

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77.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-76 above, as if fully set forth herein.

78.   The '532 patent covers methods for discovering and reporting the trustworthiness and credibility of ANI.

79.   For example, claim 32 of the patent recites:

> A system for performing forensic analysis on calling party number information
>
>> associated with an incoming call from a telephonic device, before the
>>
>> incoming call is answered, comprising:
>
> an interface for receiving calling party number information associated with the
>
>> incoming call;
>
> a memory configured to store a plurality of expected call patterns; and
>
> one or more processors configured to:
>
>> gather operational status information associated with the calling party
>>
>>> number information, and
>>
>> assign a source origin confidence metric to the calling party number using
>>
>>> the operational status information and an expected call pattern in
>>>
>>> the plurality of expected call patterns.

80.   As shown in the claim chart attached as Exhibit 23, Prove has infringed and will continue to infringe at least one claim of the '532 patent by developing, testing, using, distributing, and selling "Call Center Authentication," which is also referred to as "Call Center Authentication Solution," "Trust Platform," "Trust Portal," and "Trust Score." *See* Exhibit 23. Prove is liable for direct infringement, either literally or under the doctrine of equivalents, of the '532 patent pursuant to 35 U.S.C. § 271(a).

81.   On information and belief, Prove's Call Center Authentication satisfies the preamble of claim 32 of the '532 patent. This element requires "[a] system for performing forensic analysis on calling party number information associated with an incoming call from a telephonic device, before the incoming call is answered, comprising." Prove's Call Center Authentication "[a]uthenticates inbound call center calls and prevents ANI spoofing" and increases "ANI match rate while reducing additional authentication." Exhibit 8 at 4; Exhibit 9 at 2. Prove's Call Center Authentication provides "an increased ANI-match rate that eliminates the need for KBA questions and contains callers in the IVR." Exhibit 10 at 1. Prove's Call Center Authentication performs this analysis *before the incoming call is answered* because Prove claims to instantly verify calls. *See* Exhibit 11 at 3. Prove advertises that with its solution, customers can avoid the need for interactions with customer service representative and can answer calls already knowing whether the caller can be trusted. *See* Exhibit 11.

82.   On information and belief, Prove's Call Center Authentication satisfies the "interface" element of claim 32 of the '532 patent. This element requires "an interface for receiving calling party number information associated with the incoming call." Prove's Call Center Authentication receives SIP invite information, including the ANI, via Prove's APIs (i.e., the *interface*). *See* Exhibit 8; Exhibit 12.

83.   On information and belief, Prove's Call Center Authentication satisfies the "memory" element of claim 32 of the '532 patent. This element requires "a memory configured to store a plurality of expected call patterns." On information and belief, Prove's Call Center Authentication stores *expected call patterns* that allow the Call Center Authentication to identify fraud such as SIM swap fraud, account takeover, porting fraud, and ANI-spoofing attacks. *See*

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Exhibit 9 at 2. The Trust Score^{TM} analyzes "billions of digital signals from multiple sources" to build a "real-time measure of identity trust." *See* Exhibit 17 at 3.

84.   Claim 32 also requires "one or more processors configured to: gather operational status information associated with the calling party number information, and assign a source origin confidence metric to the calling party number using the operational status information and an expected call pattern in the plurality of expected call patterns."

85.   On information and belief, Prove's Call Center Authentication employs one or more processors to *gather operational status information associated with the calling party number information*. Specifically, the solution leverages APIs that "enable[] you to continuously update your customer records against millions of daily change events." Exhibit 8 at 2. For example, Prove's Call Center Authentication analyzes information such as tenure of a number, behavior, and funding mechanisms. *See* Consult Hyperion: Event 21 - Fireside Chat With Rodger Desai, *available at* https://chyp.com/webinars/week-21-fireside-chat-with-rodger-desai/.

86.   On information and belief, Prove's Call Center Authentication also *assigns a source origin confidence metric*. The solution provides the Payfone Trust Score^{TM} to prove possession of the phone dialing into the call center by measuring the potential risk associated with a digital identity. *See* Exhibit 11 at 4-5; Exhibit 14 at 1; Exhibit 17 at 3; Exhibit 20 at 1.

87.   On information and belief, Prove's Call Center Authentication stores *expected call patterns* so that it can identify fraud such as SIM swap fraud, account takeover, porting fraud, and ANI-spoofing attacks based on the "billions of digital signals from multiple sources" that are analyzed. Exhibit 17 at 3; *see also* Exhibit 8 at 2. As such, Prove's Call Center Authentication provides the *one or more processors* of claim 32 and the functions performed by the *one or more processors*.

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88.   It is also expected that discovery will likely reveal additional evidentiary support that Prove's Call Center Authentication performs the above limitations of claim 32 of the '532 patent.

89.   Prove has had actual knowledge of the '532 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '532 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '532 patent, and (iii) that the '532 patent is valid. *See* Exhibit 7.

90.   Prove could not have reasonably or subjectively believed that its actions do not constitute infringement of the '532 patent. Nor could Prove reasonably or subjectively believe that the '532 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '532 patent.

91.   By its actions, Prove's infringement of the '532 patent has irreparably harmed Neustar and TRUSTID. Unless Prove's infringing acts are enjoined by this Court, Neustar and TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

92.   By its actions, Prove's infringement of the '532 patent has damaged, and continues to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's infringing acts.

COUNT V:
INDUCED INFRINGEMENT OF U.S. PATENT NO. 8,238,532

93.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-92 above, as if fully set forth herein.

94.   Prove is liable for indirect infringement by actively inducing infringement of the '532 patent pursuant to 35 U.S.C. § 271(b).

95.   On information and belief, Prove's customers directly infringe the '532 patent by using Prove's Call Center Authentication in the manner alleged above. *See* Exhibit 23. On information and belief, Prove's customers' systems (e.g. IVR systems, network devices, and/or any other software and hardware) communicate with Prove's Call Center Authentication's APIs to instruct Prove to assess data obtained from an incoming call. *See* Exhibit 8. For example, Prove's Call Center Authentication system generates the Trust Score^{TM} that signals potential fraud risk. *Id.* at 2-3; *see also* Exhibit 17 at 3. By processing incoming calls using Prove's APIs, Prove's customers directly infringe the '532 patent.

96.   On information and belief, Prove specifically intends that its customers infringe the '532 patent. Prove markets its Call Center Authentication system knowing that use of the system will inevitably lead its customers to process caller data through use of Prove's API. For example, Prove advertises that its Call Center Authentication includes the generation of a Trust Score^{TM} that "analyzes digital signals from a wide array of trusted sources to give you assurance that it's really your customer on the other end of a digital transaction." *See* Exhibit 14 at 1.

97.   On information and belief, Prove encourages customers to use its solution by promising its customers that it "allows businesses to cut operating expenses by significantly reducing handle time and enabling more customers to self-service in the IVR." Exhibit 9 at 2.

98.   Prove has had actual knowledge of the '532 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '532 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '532 patent, and (iii) that the '532 patent is valid. *See* Exhibit 7.

99.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '532 patent. Nor could Prove reasonably or subjectively believe that the '532 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '532 patent.

100.   The infringing actions of Prove's customers have irreparably harmed Neustar and TRUSTID. Unless these actions are enjoined by this Court, Neustar and TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

101.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's customers' infringing acts.

COUNT VI:
CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 8,238,532

102.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-101 above, as if fully set forth herein.

103.   Prove is liable for indirect infringement by way of contributory infringement of the '532 patent pursuant to 35 U.S.C. § 271(c). Prove has sold and continues to sell, offer to sell, or import into the United States products and services knowing that they are especially made or adapted to operate in a way that infringes the '532 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. *See* Exhibit 23.

104.   Prove has had actual knowledge of the '532 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '532

patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the

'532 patent, and (iii) that the '532 patent is valid. *See* Exhibit 7.

105.   Prove markets the Call Center Authentication to combat the problem of fraud and

ANI-match authentication when verifying calls. *See* Exhibit 10. On information and belief, Call

Center Authentication has no substantial non-infringing uses.

106.   Prove could not have reasonably or subjectively believed that its actions do not

constitute indirect infringement of the '532 patent. Nor could Prove reasonably or subjectively

believe that the '532 patent is invalid. Despite that knowledge and subjective belief, Prove's

actions are egregious and beyond typical infringement. Prove thus willfully infringes the '532

patent.

107.   The infringing actions of Prove's customers have irreparably harmed Neustar and

TRUSTID. Unless these actions are enjoined by this Court, Neustar and TRUSTID will continue

to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

108.   The infringing actions of Prove's customers have damaged, and continue to

damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable

royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's

customers' infringing acts.

COUNT VII:
DIRECT INFRINGEMENT OF U.S. PATENT NO. 9,871,913

109.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-108

above, as if fully set forth herein.

110.   The '913 patent is directed to methods for identifying ANI and caller ID

manipulation to determine trustworthiness of incoming calling party and billing number

information.

111.   For example, claim 1 of the patent recites:

A computer-implemented method, comprising:

receiving from a calling party by a discrepancy detector a call request having a

called telephone number, wherein the call request includes calling party

information, wherein the discrepancy detector determines discrepancies in

calling party information and is ancillary to an originating service provider

network element that provides a telephone line for the calling party

placing the call request;

accessing a monitored called party number database, wherein accessing the

monitored called party number database includes determining whether the

call request to the called telephone number is to be verified, wherein the

monitored called party number database includes telephone numbers;

when the call request is to be verified, determining by the discrepancy detector

whether a discrepancy exists between the calling party information

contained within the call request and stored calling party information; and

when a discrepancy exists between the calling party information contained within

the call request and stored calling party information, causing call

processing of a call requested in the call request to be suspended.

112.   As shown in the claim chart attached as Exhibit 24, Prove has infringed and will

continue to infringe at least one claim of the '913 patent by developing, testing, using,

distributing, and selling its "Call Center Authentication," which is also referred to as "Call

Center Authentication Solution," "Trust Platform," "Trust Portal," and "Trust Score." *See*

Exhibit 24. Prove is liable for direct infringement, either literally or under the doctrine of equivalents, of the '913 patent pursuant to 35 U.S.C. § 271(a).

113.   On information and belief, Prove's Call Center Authentication satisfies the preamble of claim 1 of the '913 patent, which requires a "computer-implemented method." Prove's Call Center Authentication provides a *computer-implemented method* that protects call centers using "a sophisticated multi-layer approach to authenticating call center calls and the identity of callers to prevent ANI-spoofing." Exhibit 10 at 1. These products are provided via "identity verification and authentication APIs." Exhibit 8 at 1.

114.   On information and belief, Prove's Call Center Authentication satisfies the "receiving" element of claim 1 of the '913 patent. This element requires "receiving from a calling party by a discrepancy detector a call request having a called telephone number, wherein the call request includes calling party information, wherein the discrepancy detector determines discrepancies in calling party information and is ancillary to an originating service provider network element that provides a telephone line for the calling party placing the call request." On information and belief, Prove's Call Center Authentication serves as a *discrepancy detector* and receives a *call request* in the form of a SIP invite *having a called telephone number* (e.g., the customer service number dialed). *See* Exhibit 10. Prove's Call Center Authentication determines discrepancies in the calling party information by analyzing "behavioral and phone intelligence signals" to detect fraud. Exhibit 8 at 2. Prove states that its solution includes SIP invite analysis and the SIP invite includes the ANI, or *calling party information*. *See* Exhibit 12 at 1. Prove advertises that the instant the caller dials a customer service number, the ANI is verified. Exhibit 13 at 1. Prove's Call Center Authentication is also *ancillary to an originating service provider*

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network element that provides a telephone line for the calling party placing the call request, as

Prove states that its solution includes a direct carrier integration. Exhibit 12 at 1.

115.   On information and belief, Prove's Call Center Authentication provides the

"accessing" element of claim 1 of the '913 patent. This element requires "accessing a monitored

called party number database, wherein accessing the monitored called party number database

includes determining whether the call request to the called telephone number is to be verified,

wherein the monitored called party number database includes telephone numbers." Prove's

Fonebook includes telephone numbers associated with customer records. Exhibit 8 at 2. For

outbound call center calls, Prove's Call Center Authentication accesses an API, which serves as a

monitored called party number database, to determine whether a match can be found between

the phone number received and an identity. *See id.*

116.   On information and belief, Prove's Call Center Authentication satisfies the

"determining" element of claim 1 of the '913 patent. This element requires "when the call

request is to be verified, determining by the discrepancy detector whether a discrepancy exists

between the calling party information contained within the call request and stored calling party

information." On information and belief, Prove's Call Center Authentication determines whether

a *discrepancy exists between the calling party information contained within the call request and

stored calling party information* by calculating a Trust Score^{TM}. *See* Exhibit 14 at 1. The Trust

Score^{TM} measures the potential risk associated with a digital identity and validates a customer's

identity by analyzing "real-time digital signals to generate a dynamic score." Exhibit 17 at 3;

Exhibit 11 at 4. As part of its analysis, Prove's Call Center Authentication compares SIP invite

information, which is *information contained within the call request*, to Fonebook information,

which is *stored calling party information*. Exhibit 10. To perform its analysis, Prove's solution "analyzes billions of digital signals from multiple sources." Exhibit 17 at 3.

117.   On information and belief, Prove's Call Center Authentication satisfies the "causing" element of claim 1 of the '913 patent. This element requires that "when a discrepancy exists between the calling party information contained within the call request and stored calling party information, causing call processing of a call requested in the call request to be suspended." Prove's solution calculates a numerical Trust Score^{TM} that can fall within the range of one of three recommended thresholds: "[d]ecline recommended," "[f]urther inspection recommended," and "[a]pprove with no friction." *Id.* Calls falling under the "decline recommended" threshold have a low numerical score and are sent to a fraud specialist. Exhibit 11 at 5. Prove's Call Center Authentication causes call processing of a call requested in the call request to be suspended by declining to proceed with a call or sending it to a fraud specialist for further inspection.

118.   It is also expected that discovery will likely reveal additional evidentiary support that Prove's Call Center Authentication performs the above limitations of claim 1 of the '913 patent.

119.   On information and belief, Prove has known or should have known—no later than September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter—(i) about the '913 patent, (ii) that Prove's actions constituted and continue to constitute infringement of the '913 patent, and (iii) that the '913 patent is valid.

120.   Prove could not have reasonably or subjectively believed that its actions do not constitute infringement of the '913 patent. Nor could Prove reasonably or subjectively believe

that the '913 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are

egregious and beyond typical infringement. Prove thus willfully infringes the '913 patent.

121.   By its actions, Prove's infringement of the '913 patent has irreparably harmed

Neustar and TRUSTID. Unless Prove's infringing acts are enjoined by this Court, Neustar and

TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no

adequate remedy at law.

122.   By its actions, Prove's infringement of the '913 patent has damaged, and

continues to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a

reasonable royalty and/or lost profits that Neustar and TRUSTID would have made but for

Prove's infringing acts.

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COUNT VIII:
INDUCED INFRINGEMENT OF U.S. PATENT NO. 9,871,913

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123.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-122

above, as if fully set forth herein.

124.   Prove is liable for indirect infringement by actively inducing infringement of the

'913 patent pursuant to 35 U.S.C. § 271(b).

125.   On information and belief, Prove's customers directly infringes the '913 patent by

using Prove's Call Center Authentication in the manner alleged above. *See* Exhibit 24. On

information and belief, Prove's customers' systems (e.g. IVR systems, network devices, and/or

any other software and hardware) communicate with Prove's Call Center Authentication's API

to instruct Prove to access data obtained from an incoming call. *See* Exhibit 8. For example,

Prove's Call Center Authentication generates a Trust Score^{TM} that signals potential fraud risk. *Id.*

at 2-3; *see also* Exhibit 17 at 3. By processing incoming calls using Prove's APIs, Prove's

customers directly infringe the '913 patent.

126.   On information and belief, Prove specifically intends that its customers infringe the '913 patent. Prove markets its Call Center Authentication knowing that use of the system will inevitably lead its customers to process caller data through use of Prove's API. For example, Prove advertises that its Call Center Authentication includes SIP invite analysis, meaning that Prove's solution would receive information including the ANI from the call center through Prove's API. *See* Exhibit 12 at 1. Prove encourages customers to use its solution by promising its customers that it "allows businesses to cut operating expenses by significantly reducing handle time and enabling more customers to self-service in the IVR." Exhibit 9 at 2.

127.   Prove has had actual knowledge of the '913 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '913 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '913 patent, and (iii) that the '913 patent is valid. *See* Exhibit 7.

128.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '913 patent. Nor could Prove reasonably or subjectively believe that the '913 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '913 patent.

129.   The infringing actions of Prove's customers have irreparably harmed Neustar and TRUSTID. Unless these actions are enjoined by this Court, Neustar and TRUSTID will continue to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

130.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable

royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's customers' infringing acts.

COUNT IX:
CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 9,871,913

131.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-130 above, as if fully set forth herein.

132.   Prove is liable for indirect infringement by way of contributory infringement of the '913 patent pursuant to 35 U.S.C. § 271(c). Prove has sold and continues to sell, offer to sell, or import into the United States products and services knowing that they are especially made or adapted to operate in a way that infringes the '913 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. *See* Exhibit 24.

133.   Prove has had actual knowledge of the '913 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '913 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '913 patent, and (iii) that the '913 patent is valid. *See* Exhibit 7.

134.   Prove markets the Call Center Authentication to combat the problem of fraud and ANI-match authentication when verifying calls. *See* Exhibit 10. On information and belief, Call Center Authentication has no substantial non-infringing uses.

135.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '913 patent. Nor could Prove reasonably or subjectively believe that the '913 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '913 patent.

136.   The infringing actions of Prove's customers have irreparably harmed Neustar and

TRUSTID. Unless these actions are enjoined by this Court, Neustar and TRUSTID will continue

to suffer additional irreparable injury. Neustar and TRUSTID have no adequate remedy at law.

137.   The infringing actions of Prove's customers have damaged, and continue to

damage, Neustar and TRUSTID in an amount yet to be determined, of at least a reasonable

royalty and/or lost profits that Neustar and TRUSTID would have made but for Prove's

customers' infringing acts.

COUNT X:
DIRECT INFRINGEMENT OF U.S. PATENT NO. 9,762,728

138.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-137

above, as if fully set forth herein.

139.   The '728 patent covers methods for using calling party number for caller

authentication.

140.   For example, claim 1 of the patent recites:

A method, comprising:

receiving, by an authentication device, a call request and associated calling

    party information that includes a calling party number, wherein the call

    request is initiated by a caller;

retrieving, by the authentication device, parameters associated with the

    calling party number, wherein the parameters include a number of

    accounts linked to the calling party number;

determining whether the number of accounts is between one and a

    threshold value, inclusive;

authenticating, by the authentication device, the calling party number by

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verifying that the call request originates from a location or a device

associated with the calling party number;

generating, by the authentication device based on the verifying and

whether the number of accounts is determined to be between one and the

threshold value, an authentication result indicating whether the calling

party number is authenticated; and

sending, by the authentication device, the authentication result to a call

processing device that processes the call request from the caller according

to the authentication result.

141.   As shown in the claim chart attached as Exhibit 25, Prove has infringed and will

continue to infringe at least one claim of the '728 patent by developing, testing, using,

distributing, and selling its "Call Center Authentication," which is also referred to as "Call

Center Authentication Solution," "Trust Platform," "Trust Portal," and "Trust Score." *See*

Exhibit 25. Prove is liable for direct infringement, either literally or under the doctrine of

equivalents, of the '728 patent pursuant to 35 U.S.C. § 271(a).

142.   On information and belief, Prove's Call Center Authentication satisfies the

"receiving" element of claim 1 of the '728 patent. This element requires "receiving, by an

authentication device, a call request and associated calling party information that includes a

calling party number, wherein the call request is initiated by a caller." Prove's Call Center

Authentication functions as *an authentication device* that works behind the scenes to verify ANI

when a caller calls a call center. Exhibit 13 at 1. Prove advertises that its solution includes SIP

invite analysis, *a call request*, that greenlights callers by verifying the ANI, or *calling party*

information that includes a calling party number, and protects call centers against emerging

threats such as IVR credential stuffing, ANI spoofing, SIM swap, and account takeover. Exhibit 12; Exhibit 9 at 2.

143.   On information and belief, Prove's Call Center Authentication satisfies the "retrieving" element of claim 1 of the '728 patent. This element requires "retrieving, by the authentication device, parameters associated with the calling party number, wherein the parameters include a number of accounts linked to the calling party number." On information and belief, Prove's Call Authentication solution retrieves *parameters associated with the calling party number* as it "analyzes real-time digital signals." Exhibit 11 at 4; Exhibit 17 at 3 (Prove's system "analyzes billions of digital signals from multiple sources."). Prove's solution analyzes *a number of accounts linked to the calling party number*. *See* Exhibit 8; Exhibit 9; Exhibit 12. Prove advertises that its solution is built on "years of proprietary phone intelligence that enable [Prove] to anonymously measure a phone number's reputation and risk with real-time processing of behavioral signals." Exhibit 15 at 2.

144.   On information and belief, Prove's Call Center Authentication satisfies the "determining" element of claim 1 of the '728 patent. This element requires "determining whether the number of accounts is between one and a threshold value, inclusive." On information and belief, Prove's Call Authentication solution determines *whether the number of accounts is between one and a threshold value* as it confirms the digital identity of callers by analyzing digital signals and generating a dynamic score of its trustworthiness. Exhibit 11 at 4.

145.   On information and belief, Prove's Call Center Authentication satisfies the "authenticating" element of claim 1 of the '728 patent. This element requires "authenticating, by the authentication device, the calling party number by verifying that the call request originates from a location or a device associated with the calling party number." On information and belief,

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Prove's Call Center Authentication authenticates a digital identity, *the calling party number*, by generating a Trust Score™, which measures the potential risk that the SIP invite or *call request* does not *originate[] from a location or a device assoiated with the calling party number*. Exhibit 12; Exhibit 17 at 3.

146.   On information and belief, Prove's Call Center Authentication satisfies the "generating" element of claim 1 of the '728 patent. This element requires "generating, by the authentication device based on the verifying and whether the number of accounts is determined to be between one and the threshold value, an authentication result indicating whether the calling party number is authenticated." On information and belief, Prove's Call Center Authentication generates a Trust Score™, or *authentication result*, that indicates whether the *calling party number* is authenticated by "measur[ing] the potential risk associated with a digital identity" and "validates a customer's identity and virtually eliminates impersonation attacks (for example, SIM swap fraud, account takeover, porting fraud, and ANI-spoofing attacks.)." Exhibit 17 at 3; Exhibit 11 at 4-5; Exhibit 20 at 1.

147.   On information and belief, Prove's Call Center Authentication satisfies the "sending" element of claim 1 of the '728 patent. This element requires "sending, by the authentication device, the authentication result to a call processing device that processes the call request from the caller according to the authentication result." Prove's Call Center Authentication uses the Trust Score™, or *authentication result*, to categorize the call in one of three thresholds: "[d]ecline recommended," "[f]uther recommended," or "[a]pprove with no friction." Exhibit 17 at 3. Scores that are 0-300, or "decline recommended," are sent to a fraud specialist. Exhibit 11 at 5. In this way it *processes the call request from the caller according to the authentication result*.

148.   It is also expected that discovery will likely reveal additional evidentiary support that Prove's Call Center Authentication performs the above limitations of claim 1 of the '728 patent.

149.   On information and belief, Prove has known or should have known—no later than September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter—(i) about the '728 patent, (ii) that Prove's actions constituted and continue to constitute infringement of the '728 patent, and (iii) that the '728 patent is valid.

150.   Prove could not have reasonably or subjectively believed that its actions do not constitute infringement of the '728 patent. Nor could Prove reasonably or subjectively believe that the '728 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '728 patent.

151.   By its actions, Prove's infringement of the '728 patent has irreparably harmed Neustar. Unless Prove's infringing acts are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

152.   By its actions, Prove's infringement of the '728 patent has damaged, and continues to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's infringing acts.

COUNT XI:
INDUCED INFRINGEMENT OF U.S. PATENT NO. 9,762,728

153.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-152 above, as if fully set forth herein.

154.   Prove is liable for indirect infringement by actively inducing infringement of the '728 patent pursuant to 35 U.S.C. § 271(b).

155. On information and belief, Prove's customers directly infringe the '728 patent by using Prove's Call Center Authentication in the manner alleged above. *See* Exhibit 25. On information and belief, Prove's customers' systems (e.g. IVR systems, network devices, and/or any other software and hardware) communicate with Prove's Call Center Authentication's API to instruct Prove to access data obtained from an incoming call. *See* Exhibit 8. For example, Prove's Call Center Authentication generates a Trust Score^{TM} that signals potential fraud risk. *Id.* at 2-3; *see also* Exhibit 17 at 3. By processing incoming calls using Prove's APIs, Prove's customers directly infringe the '728 patent.

156. On information and belief, Prove specifically intends that its customers infringe the '728 patent. Prove markets its Call Center Authentication knowing that use of the system will inevitably lead its customers to process caller data through use of Prove's API. For example, Prove advertises that its Call Center Authentication includes SIP invite analysis, meaning that Prove's solution would receive information including the ANI from the call center through Prove's API. Exhibit 12.

157. Prove encourages customers to use its solution by promising its customers that it "allows businesses to cut operating expenses by significantly reducing handle time and enabling more customers to self-service in the IVR." Exhibit 9 at 2.

158. Prove has had actual knowledge of the '728 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '728 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '728 patent, and (iii) that the '728 patent is valid. *See* Exhibit 7.

159. Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '728 patent. Nor could Prove reasonably or subjectively

believe that the '728 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '728 patent.

160.   The infringing actions of Prove's customers have irreparably harmed Neustar. Unless these actions are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

161.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's customers' infringing acts.

COUNT XII:
CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 9,762,728

162.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-161 above, as if fully set forth herein.

163.   Prove is liable for indirect infringement by way of contributory infringement of the '728 patent pursuant to 35 U.S.C. § 271(c). Prove has sold and continues to sell, offer to sell, or import into the United States products and services knowing that they are especially made or adapted to operate in a way that infringes the '728 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. *See* Exhibit 25.

164.   Prove has had actual knowledge of the '728 patent since at least September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter identifying (i) the '728 patent, (ii) that Next Caller's actions constituted and continue to constitute infringement of the '728 patent, and (iii) that the '728 patent is valid. *See* Exhibit 7.

165.   Prove markets the Call Center Authentication to combat the problem of fraud and ANI-match authentication when verifying calls. *See* Exhibit 10. On information and belief, Call Center Authentication has no substantial non-infringing uses.

166.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '728 patent. Nor could Prove reasonably or subjectively believe that the '728 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '728 patent.

167.   The infringing actions of Prove's customers have irreparably harmed Neustar. Unless these actions are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

168.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's customers' infringing acts.

COUNT XIII:
DIRECT INFRINGEMENT OF U.S. PATENT NO. 10,693,840

169.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-168 above, as if fully set forth herein.

170.   The '840 patent covers methods and systems for distributing contacting information between applications.

171.   For example, claim 1 of the patent recites:

A method for sharing contact information of a first user between a first application and a second application associated with a second user, the method comprising using a server on a computer network to perform steps of:

identifying a first identifier relating to the first user;

provisioning contact information associated with the first identifier, wherein the

contact information includes a set of different identifiers, each of which is

different from the first identifier;

storing the contact information and the first identifier together in a first database;

receiving a request for the contact information from the second user, wherein a

second identifier is associated with the second user;

determining whether the second user is authorized to obtain the contact

information, based on the second identifier being in a set of authorized identifiers

authorized to access the contact information;

when a determination is made that the second user is authorized to obtain the

contact information, retrieving the contact information from the first database;

and

transmitting the contact information to the second application associated with the

second user without receiving an authorization signal from the first user in

response to the request.

172.   As shown in the claim chart attached as Exhibit 26, Prove has infringed and will

continue to infringe at least one claim of the '840 patent by developing, testing, using,

distributing, and selling contact-identification services. *See* Exhibit 26. Prove is liable for direct

infringement, either literally or under the doctrine of equivalents, of the '840 patent pursuant to

35 U.S.C. § 271(a).

173.   On information and belief, Prove's Contact Identification, which is also referred

to as "Fonebook," "Trust Platform," "Trust Portal," "Prove Identity Verification," and "Prove

Trust Score," satisfies the preamble of claim 1 of the '840 patent. This element requires "[a] method for sharing contact information of a first user between a first application and a second application associated with a second user, the method comprising using a server on a computer network." Prove's Contact Identification "[e]nables you to continuously update your customer records against millions of daily change events" and "[e]stablishes persistent, private IDs for your customers so that their identities can be securely verified during interactions such as mobile and web logins, and call center calls." Exhibit 8 at 2. In addition, Prove's contact-identification solution, verifies "that a caller's phone number matches their address." Exhibit 18 at 2.

174.   On information and belief, Prove's Contact Identification satisfies the "identifying" element of claim 1. This element requires "identifying a first identifier relating to the first user." Prove's Contact Identification identifies "*a first identifier*" (e.g., a phone number) related to a "*first user*" (e.g., a caller). For example, one can use Prove's Contact Identification to verify "that a caller's phone number matches their address." Exhibit 18 at 2.

175.   On information and belief, Prove's Contact Identification satisfies the "provisioning" element of claim 1. This element requires "provisioning contact information associated with the first identifier, wherein the contact information includes a set of different identifiers, each of which is different from the first identifier." Proves Contact Identification stores contact information, such as address and name (e.g., "*different identifiers*"), along with a caller's phone number (e.g., "*first identifier*"). For example, one can use Prove's Contact Identification to verifiy "that a caller's phone number matches their address." *Id.*

176.   On information and belief, Prove's Contact Identification satisfies the "storing" element of claim 1. This element requires "storing the contact information and the first identifier together in a first database." Prove's Contact Identification stores contact information in a

database with identifiers, such as the telephone numbers, addresses, and names of callers. *See, e.g.*, Exhibit 18.

177.   On information and belief, Prove's Contact Identification satisfies the "receiving" element of claim 1. This element requires "receiving a request for the contact information from the second user, wherein a second identifier is associated with the second user." On information and belief, Prove's Contact Identification receives requests for contact information from a second user, such as agents, or automated computing systems, such as customer relationship management ("CRM") tools or interactive voice response ("IVR") systems. The requests are ultimately received as requests to an application programming interface" ("API"). *See, e.g.*, Exhibit 19 at 1 ("Prove's global cloud solutions and mobile intelligence driven APIs significantly increase the Approve Rates of digital transactions while mitigating fraud with a focus on accuracy, ease and privacy."); Exhibit 8 at 1 ("Easy-to-implement APIs").

178.   On information and belief, Prove's Contact Identification satisfies the "determining" element of claim 1. This element requires "determining whether the second user is authorized to obtain the contact information, based on the second identifier being in a set of authorized identifiers authorized to access the contact information." On information and belief, Prove's Contact Identification is accessed via an Application Programming Interface ("API"), which is only available to authorized users. *See* Exhibit 8. On information and belief, users of Prove's API supply credentials in order to access it. And from these credentials, Prove's API determines whether such users are authorized to access the information provided by Prove's Contact Identification.

179.   On information and belief, Prove's Contact Identification satisfies the "when a determination is made" element of claim 1. This element requires "when a determination is made

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that the second user is authorized to obtain the contact information, retrieving the contact

information from the first database." On information and belief, users of Prove's API supply

credentials in order to access it. And from these credentials, Prove's API determines whether

such users are authorized to access the information provided by Prove's Contact Identification.

See, e.g., Exhibit 19. On information at believe, Prove's API then retrieves the contact

information for authorized users. *See* Exhibit 9; Exhibit 21.

180.   On information and belief, Prove's Contact Identification satisfies the

"transmitting" element of claim 1. This element requires "transmitting the contact information to

the second application associated with the second user without receiving an authorization signal

from the first user in response to the request." On information and belief, Prove's Contact

Identification transmits contact information related to callers to agents or other automated

systems (e.g., CRM's or IVRs) in response to an API request. *See* Exhibit 9; Exhibit 21. And on

information and belief, this data is transmitted on the basis of whether the requesting user has

access to the information, not whether the caller has authorized it.

181.   It is also expected that discovery will likely reveal additional evidentiary support

that Prove's Contact Identification performs the above limitations of claim 1 of the '840 patent.

182.   Prove has had actual knowledge of the '840 patent since at least the filing of this

Complaint. Prove has also remained willfully blind about the '840 patent since no later than

September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter. The

Notice Letter alerted Prove about the existence of Neustar's patent portfolio and that Prove's

products directly and indirectly infringe multiple patents in that portfolio. Accordingly, Prove

has remained willfully blind regarding both the existence and validity of the '840 patent and

Prove's infringement of the '840 patent. *See GlobalTech Applicances, Inc. v. SEB S.A.*, 563 U.S.

754, 769 (2011) ("[A] willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing.").

183.   Prove could not have reasonably or subjectively believed that its actions do not constitute infringement of the '840 patent. Nor could Prove reasonably or subjectively believe that the '840 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '840 patent.

184.   By its actions, Prove's infringement of the '840 patent has irreparably harmed Neustar. Unless Prove's infringing acts are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

185.   By its actions, Prove's infringement of the '840 patent has damaged, and continues to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's infringing acts.

COUNT XIV:
INDUCED INFRINGEMENT OF U.S. PATENT NO. 10,693,840

186.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-185 above, as if fully set forth herein.

187.   Prove is liable for indirect infringement by actively inducing infringement of the '840 patent pursuant to 35 U.S.C. § 271(b).

188.   On information and belief, Prove's customers directly infringes the '840 patent by using Prove's Contact Identification in the manner alleged above. *See* Exhibit 26. On information and belief, Prove's customers' systems (e.g. IVR systems, CRM systems, network devices, and/or any other software and hardware) communicate with Prove's Contact Identification's APIs to instruct Prove to retrieve contact information about a caller. *See* Exhibit 8. For example, one can use Prove's Contact Identification to verify "that a caller's phone

number matches their address." Exhibit 18 at 2. By retrieving contact information and verifying

that a caller's phone number matches their address using Prove's APIs, Prove's customers

directly infringe the '840 patent.

189.   On information and belief, Prove specifically intends that its customers infringe

the '840 patent. Prove markets its Call Center Authentication system knowing that use of the

system will inevitably lead its customers to request contact information through use of Prove's

API. For example, one can use Prove's Contact Identification to verify "that a caller's phone

number matches their address." *Id.*

190.   On information and belief, Prove encourages customers to use its solution by

promising that the results "demonstrate[] the power of Prove's platform, which helped agents

provide a much more seamless and personable experience to their consumers." *Id.*

191.   Prove has had actual knowledge of the '840 patent since at least the filing of this

Complaint. Prove has also remained willfully blind about the '840 patent since no later than

September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter. The

Notice Letter alerted Prove about the existence of Neustar's patent portfolio and that Prove's

products directly and indirectly infringe multiple patents in that portfolio. Accordingly, Prove

has remained willfully blind regarding both the existence and validity of the '840 patent and

Prove's infringement of the '840 patent. *See GlobalTech Applicances, Inc. v. SEB S.A.*, 563 U.S.

754, 769 (2011) ("[A] willfully blind defendant is one who takes deliberate actions to avoid

confirming a high probability of wrongdoing.").

192.   Prove could not have reasonably or subjectively believed that its actions do not

constitute indirect infringement of the '840 patent. Nor could Prove reasonably or subjectively

believe that the '840 patent is invalid. Despite that knowledge and subjective belief, Prove's

actions are egregious and beyond typical infringement. Prove thus willfully infringes the '840 patent.

193.   The infringing actions of Prove's customers have irreparably harmed Neustar. Unless these actions are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

194.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's customers' infringing acts.

COUNT XV:
CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 10,693,840

195.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-194 above, as if fully set forth herein.

196.   Prove is liable for indirect infringement by way of contributory infringement of the '840 patent pursuant to 35 U.S.C. § 271(c). Prove has sold and continues to sell, offer to sell, or import into the United States products and services knowing that they are especially made or adapted to operate in a way that infringes the '840 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. *See* Exhibit 26.

197.   Prove has had actual knowledge of the '840 patent since at least the filing of this Complaint. Prove has also remained willfully blind about the '840 patent since no later than September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter. The Notice Letter alerted Prove about the existence of Neustar's patent portfolio and that Prove's products directly and indirectly infringe multiple patents in that portfolio. Accordingly, Prove has remained willfully blind regarding both the existence and validity of the '840 patent and Prove's infringement of the '840 patent. *See GlobalTech Applicances, Inc. v. SEB S.A.*, 563 U.S.

754, 769 (2011) ("[A] willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing.").

198.   Prove markets the Contact Identification to "help[] agents provide a much more seamless and personable experience to their consumers." Exhibit 18 at 2. On information and belief, Contact Identification has no substantial non-infringing uses.

199.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '840 patent. Nor could Prove reasonably or subjectively believe that the '840 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '840 patent.

200.   The infringing actions of Prove's customers have irreparably harmed Neustar. Unless these actions are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

201.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's customers' infringing acts.

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COUNT XVI:
DIRECT INFRINGEMENT OF U.S. PATENT NO. 10,547,739

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202.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-201 above, as if fully set forth herein.

203.   The '739 patent covers methods and systems for an independent network authority to provide contact information in connection with incoming calls.

204.   For example, claim 1 of the patent recites:

 1. A method for operating a computing device, the method comprising:

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(a) determining a phone number of an incoming communication;

(b) initiating a retrieval process to retrieve information associated with the phone

number from a predetermined network location of a network authority,

wherein the information is retrieved from a database storing phone

numbers associated with a plurality of end-user devices, and

wherein an entity authorized with the network authority to use the phone

number provides the information to the network authority to associate the

information with the phone number; and

(c) rendering the retrieved information and the phone number of the incoming

communication using the computing device.

205.   As shown in the claim chart attached as Exhibit 27, Prove has infringed and will

continue to infringe at least one claim of the '739 patent by developing, testing, using,

distributing, and selling Call Center Authentication and Contact Identification. *See* Exhibit 27.

Call Center Authentication is also referred to as "Call Center Authentication Solution," "Trust

Platform," "Trust Portal," and "Trust Score." Contact Identification is also referred to as

"Fonebook," "Trust Platform," "Trust Portal," "Prove Identity Verification," and "Prove Trust

Score." Prove is liable for direct infringement, either literally or under the doctrine of

equivalents, of the '739 patent pursuant to 35 U.S.C. § 271(a).

206.   On information and belief, Prove's Call Center Authentication and Contact

Identification each satisfy the preamble of claim 1 of the '739 patent. This element requires "A

method for operating a computing device, the method comprising." Prove's Call Center

Authentication "[a]uthenticates inbound call center calls and prevents ANI spoofing" and

increases "ANI match rate while reducing additional authentication." Exhibit 8 at 4; Exhibit 9 at

2. Similarly, Prove's Contact Identification "[e]nables you to continuously update your customer records against millions of daily change events" and "[e]stablishes persistent, private IDs for your customers so that their identities can be securely verified during interactions such as mobile and web logins, and call center calls." Exhibit 8 at 2. On information and belief, each of these solutions are provided via an API, which operates on a computing device controlled by Prove.

207.   On information and belief, Prove's Call Center Authentication and Contact Identification each satisfy the "determining" element of claim 1 of the '739 patent. This element requires "determining a phone number of an incoming communication." Prove's Call Center Authentication receives SIP invite information, including the ANI (i.e. a phone number, via Prove's APIs. *See* Exhibit 12. In addition, Prove's Contact Identification receives "caller's phone number" such that it can verify "that a caller's phone number matches their address." Exhibit 18 at 2.

208.   On information and belief, Prove's Call Center Authentication and Contact Identification each satisfy the "initiating" element of claim 1 of the '739 patent. This element requires "initiating a retrieval process to retrieve information associated with the phone number from a predetermined network location of a network authority." On information and belief, Prove's Call Center Authentication retrieves information associated with a phone number (the received ANI) from a variety of network authorities, such as carriers like Verizon and T-Mobile. The Trust Score^{TM} then analyzes "billions of digital signals from multiple sources" to build a "real-time measure of identity trust." *See* Exhibit 17. Similarly, on information and belief, Prove's Contact Identification retrieves contact information regarding phone numbers from third-party databases. For example, Prove's Contact Identification then uses this information "to

continuously update your customer records against millions of daily change events." Exhibit 8 at 2.

209.   Claim 1 also requires "wherein the information is retrieved from a database storing phone numbers associated with a plurality of end-user devices." On information and belief, the third-party databases Prove uses to retrieve contact information for its Contact Identification store phone numbers that are associated with a plurality of end-user devices. And similarly, the carrier databases that Prove uses as part of its Call Center Authentication store phone numbers associated with a plurality of end-user devices. For example, on information and belief, each of these databases store phone numbers that are associated with a wide-variety of individuals and businesses, each of which are naturally associated with different end-user devices (i.e., telephones). For example, Prove advertises that its solutions have "[p]ersistent identity verification that covers 90% of US adults and stays updated through phone number ownership and device lifecycle events." Exhibit 19 at 3.

210.   And claim 1 also requires "wherein an entity authorized with the network authority to use the phone number provides the information to the network authority to associate the information with the phone number." On information and belief, the third-party databases and carrier databases that Prove uses contain information that has been authorized for use. For example, Prove markets its solutions as using a "[p]rivacy-first approach to data emphasizes a decentralized data architecture, identity tokenization, consent, and limits on data aggregation." *Id.*

211.   On information and belief, Prove's Call Center Authentication and Contact Identification each satisfy the "rendering" element of claim 1 of the '739 patent. This element requires "rendering the retrieved information and the phone number of the incoming

communication using the computing device." Specifically, The Call Center Authentication

provides the Payfone Trust Score™, used to prove possession of the phone dialing into the call

center by measuring the potential risk associated with a digital identity. *See* Exhibit 11 at 4-5;

Exhibit 14 at 1; Exhibit 17 at 3. In addition, on information and belief, Prove's Contact

Identification transmits contact information related to callers to agents or other automated

systems (e.g.. CRM's or IVRs) in response to an API request. *See* Exhibit 19 at 1 ("Prove's

global cloud solutions and mobile intelligence driven APIs significantly increase the Approve

Rates of digital transactions while mitigating fraud with a focus on accuracy, ease and privacy.");

Exhibit 8 at 1 ("Easy-to-implement APIs to secure and streamline your customer journey").

212.   It is also expected that discovery will likely reveal additional evidentiary support

that Prove's Call Center Authentication and Contact Identification perform the above limitations

of claim 1 of the '739 patent.

213.   Prove has had actual knowledge of the '739 patent since at least the filing of this

Complaint. Prove has also remained willfully blind about the '739 patent since no later than

September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter. The

Notice Letter alerted Prove about the existence of Neustar's patent portfolio and that Prove's

products directly and indirectly infringe multiple patents in that portfolio. Accordingly, Prove

has remained willfully blind regarding both the existence and validity of the '739 patent and

Prove's infringement of the '739 patent. *See GlobalTech Applicances, Inc. v. SEB S.A.*, 563 U.S.

754, 769 (2011) ("[A] willfully blind defendant is one who takes deliberate actions to avoid

confirming a high probability of wrongdoing.").

214.   Prove could not have reasonably or subjectively believed that its actions do not

constitute infringement of the '739 patent. Nor could Prove reasonably or subjectively believe

that the '739 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '739 patent.

215.   By its actions, Prove's infringement of the '739 patent has irreparably harmed Neustar. Unless Prove's infringing acts are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

216.   By its actions, Prove's infringement of the '739 patent has damaged, and continues to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's infringing acts.

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<u>COUNT XVII:</u>
<u>INDUCED INFRINGEMENT OF U.S. PATENT NO. 10,547,739</u>
</div>

217.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-216 above, as if fully set forth herein.

218.   Prove is liable for indirect infringement by actively inducing infringement of the '739 patent pursuant to 35 U.S.C. § 271(b).

219.   On information and belief, Prove's customers directly infringes the '739 patent by using Prove's Call Center Authentication and Contact Indentification in the manner alleged above. *See* Exhibit 27. On information and belief, Prove's customers' systems (e.g. IVR systems, CRMs, network devices, and/or any other software and hardware) communicate with Prove's APIs to instruct Prove to assess data obtained from an incoming call and/or retrieve contact information. *See* Exhibit 8. For example, Prove's Call Center Authentication system generates the Trust Score™ that signals potential fraud risk. *Id.* at 2-3; *see also* Exhibit 17 at 3. And Prove's Contact Identification receives "caller's phone number" such that it can verify "that a caller's phone number matches their address." Exhibit 18 at 2. By processing incoming calls and

retrieving contact information using Prove's APIs, Prove's customers directly infringe the '739 patent.

220.   On information and belief, Prove specifically intends that its customers infringe the '739 patent. Prove markets its Call Center Authentication system knowing that use of the system will inevitably lead its customers to process caller data through use of Prove's API. For example, Prove advertises that its Call Center Authentication includes the generation of a Trust Score^{TM} that "analyzes digital signals from a wide array of trusted sources to give you assurance that it's really your customer on the other end of a digital transaction." *See* Exhibit 14 at 1. And Prove's Contact Identification uses contact information "to continuously update your customer records against millions of daily change events." Exhibit 8 at 2.

221.   Prove encourages customers to use its solutions by promising its customers that it "allows businesses to cut operating expenses by significantly reducing handle time and enabling more customers to self-service in the IVR." Exhibit 9 at 2. And that they "help[] agents provide a much more seamless and personable experience to their consumers." Exhibit 18 at 2.

222.   Prove has had actual knowledge of the '739 patent since at least the filing of this Complaint. Prove has also remained willfully blind about the '739 patent since no later than September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter. The Notice Letter alerted Prove about the existence of Neustar's patent portfolio and that Prove's products directly and indirectly infringe multiple patents in that portfolio. Accordingly, Prove has remained willfully blind regarding both the existence and validity of the '739 patent and Prove's infringement of the '739 patent. *See GlobalTech Applicances, Inc. v. SEB S.A.*, 563 U.S. 754, 769 (2011) ("[A] willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing.").

223.   Prove could not have reasonably or subjectively believed that its actions do not constitute indirect infringement of the '739 patent. Nor could Prove reasonably or subjectively believe that the '739 patent is invalid. Despite that knowledge and subjective belief, Prove's actions are egregious and beyond typical infringement. Prove thus willfully infringes the '739 patent.

224.   The infringing actions of Prove's customers have irreparably harmed Neustar. Unless these actions are enjoined by this Court, Neustar will continue to suffer additional irreparable injury. Neustar has no adequate remedy at law.

225.   The infringing actions of Prove's customers have damaged, and continue to damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost profits that Neustar would have made but for Prove's customers' infringing acts.

COUNT XVIII:
CONTRIBUTORY INFRINGEMENT OF U.S. PATENT NO. 10,547,739

226.   Neustar and TRUSTID re-allege and incorporate by reference Paragraphs 1-225 above, as if fully set forth herein.

227.   Prove is liable for indirect infringement by way of contributory infringement of the '739 patent pursuant to 35 U.S.C. § 271(c). Prove has sold and continues to sell, offer to sell, or import into the United States products and services knowing that they are especially made or adapted to operate in a way that infringes the '739 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. *See* Exhibit 27.

228.   Prove has had actual knowledge of the '739 patent since at least the filing of this Complaint. Prove has also remained willfully blind about the '739 patent since no later than September 8, 2020, the date which Prove confirmed receipt of Neustar's Notice Letter. The Notice Letter alerted Prove about the existence of Neustar's patent portfolio and that Prove's

products directly and indirectly infringe multiple patents in that portfolio. Accordingly, Prove

has remained willfully blind regarding both the existence and validity of the '739 patent and

Prove's infringement of the '739 patent. *See GlobalTech Applicances, Inc. v. SEB S.A.*, 563 U.S.

754, 769 (2011) ("[A] willfully blind defendant is one who takes deliberate actions to avoid

confirming a high probability of wrongdoing.").

229.   Prove markets the Call Center Authentication to combat the problem of fraud and

ANI-match authentication when verifying calls. *See* Exhibit 10. On information and belief, Call

Center Authentication has no substantial non-infringing uses. Prove markets Contact

Identification to "help[] agents provide a much more seamless and personable experience to their

consumers." Exhibit 18 at 2.

230.   Prove could not have reasonably or subjectively believed that its actions do not

constitute indirect infringement of the '739 patent. Nor could Prove reasonably or subjectively

believe that the '739 patent is invalid. Despite that knowledge and subjective belief, Prove's

actions are egregious and beyond typical infringement. Prove thus willfully infringes the '739

patent.

231.   The infringing actions of Prove's customers have irreparably harmed Neustar.

Unless these actions are enjoined by this Court, Neustar will continue to suffer additional

irreparable injury. Neustar has no adequate remedy at law.

232.   The infringing actions of Prove's customers have damaged, and continue to

damage, Neustar in an amount yet to be determined, of at least a reasonable royalty and/or lost

profits that Neustar would have made but for Prove's customers' infringing acts.

DEMAND FOR JURY TRIAL

233.   Neustar demands trial by jury on all claims and issues so triable.

PRAYER FOR RELIEF

234.   Wherefore, Neustar respectfully requests that this Court enter judgment against

Prove as follows:

a.   That one or more claims of the '532 patent have been infringed by Prove;

b.   That Prove's infringement of the '532 patent has been willful;

c.   That one or more claims of the '985 patent have been infringed by Prove;

d.   That Prove's infringement of the '985 patent has been willful;

e.   That one or more claims of the '913 patent have been infringed by Prove;

f.   That Prove's infringement of the '913 patent has been willful;

g.   That one or more claims of the '728 patent have been infringed by Prove;

h.   That Prove's infringement of the '728 patent has been willful;

i.   That one or more claims of the '840 patent have been infringed by Prove;

j.   That Prove's infringement of the '840 patent has been willful;

k.   That one or more claims of the '739 patent have been infringed by Prove;

l.   That Prove's infringement of the '739 patent has been willful;

m.   An award of damages adequate to compensate Neustar for the patent
     infringements that have occurred, together with pre-judgment interest and costs;

n.   An accounting for acts of infringement not presented at trial and/or up to the
     judgment and an award by the Court of additional damage for any such acts of
     infringement;

o.   A preliminary and permanent injunction against Prove from further infringement,
     or alternatively, award an ongoing royalty for Prove's post-verdict infringement,
     payable on each product or service offered by Prove that is found to infringe one

or more of the patents asserted herein, and on all future products and services that

are not colorably different from those found to infringe;

p. An award of all other damages permitted by 35 U.S.C. § 284, including increased

damages up to three times the amount of compensatory damages found;

q. A finding that this is an exceptional case and an award to Neustar of its costs and

reasonable attorneys' fees incurred in this action as provided by 35 U.S.C. § 285;

and

r. Such other relief, including other monetary and equitable relief, as this Court

deems just and proper.

Dated: December 1, 2020   Respectfully submitted,

                                                       /s/*Adam W. Poff*_____
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